



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,547	12/26/2001	Guido Schmitz	215747US0	8308
22850	7590	11/20/2003	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			BISSETT, MELANIE D	
			ART UNIT	PAPER NUMBER

1731

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/025,547	SCHMITZ ET AL.	
	Examiner	Art Unit	
	Melanie D. Bissett	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 0803. 6) ☐ Other: _____

1. The rejections based on 35 USC 102 and 103 have been withdrawn based on the applicant's amendments and statement of common ownership. New rejections have been added.

Information Disclosure Statement

2. The applications listed in the "List of Related Cases" which have been published have been considered. These are listed on the form PTO-892 as published applications or patent documents but are not provided to the applicant, since it is believed that the applicant has copies of these references. Application No. 09/079,696 is pending and was unavailable to the examiner for review.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-15, 17, and 21 are rejected under 35 U.S.C. 103(a) as being obvious over Betremieux et al. in view of Schueler et al. (US 2002/0115771 A1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject

matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

5. Betremieux applies as above, teaching the use of polyamide copolymers having polyamide and polyetherdiamine blocks in a blend component (col. 3 lines 3-59), but failing to mention polyamine-polyamide copolymers prepared using the applicant's claimed monomers. Schueler teaches copolymers suitable as a blend component made by reacting 0.5-25% by weight of a polyamine having at least 11 nitrogen atoms and an M_n of at least 500 g/mol with an equimolar combination of polyamide-forming monomers [0054]-[0056]. Blends containing the copolymers have better impact strength (abstract). Preferably, the polyamine is used in an amount of 1.5-16% by weight and has a molecular weight of at least 800 g/mol [0055]. The amino group concentration of the copolymer is preferably from 100-2500 mmol/kg [0057]. It is the examiner's position that it would have been prima facie obvious to use the polyamine-

polyamide copolymers of Schueler's invention in the blend composition of Betremieux to improve the processing performance and compatibility of the blend.

6. Claims 1-13 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsubishi in view of Schueler et al.

7. The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

8. Mitsubishi applies as above, teaching the use of polyamide blended with modified polyolefin but failing to mention polyamine-polyamide copolymers prepared using the applicant's claimed monomers. Schueler teaches copolymers suitable as a blend component made by reacting 0.5-25% by weight of a polyamine having at least 11 nitrogen atoms and an M_n of at least 500 g/mol with an equimolar combination of polyamide-forming monomers [0054]-[0056]. Blends containing the copolymers have better impact strength (abstract). Preferably, the polyamine is used in an amount of 1.5-16% by weight and has a molecular weight of at least 800 g/mol [0055]. The amino group concentration of the copolymer is preferably from 100-2500 mmol/kg [0057]. It is the examiner's position that it would have been prima facie obvious to use the polyamine-polyamide copolymers of Schueler's invention in the blend composition of Mitsubishi to improve the processing performance and compatibility of the blend.

1. Claims 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Betremieux et al. in view of Schueler et al. as applied to claims 1-15, 17, and 21 above, and further in view of Pfleger.

2. Betremieux and Schueler apply as above, teaching a pipe but failing to mention a corrugated pipe. Pfleger teaches a corrugated pipe used as a coolant line for automobiles (col. 1 lines 52-60) having an inner layer comprising EPDM and an outer layer of polyamide (col. 4 lines 21-25). Pfleger teaches that it is conventional to produce corrugated pipes because of their flexibility (col. 1 lines 36-42). Thus, it is the examiner's position that it would have been prima facie obvious to form a corrugated

pipe from the invention of Betremieux and Schueler to provide a more flexible pipe suitable for use in automobiles.

3. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Betremieux et al. in view of Schueler et al. as applied to claims 1-15, 17, and 21 above, and further in view of Bertero et al.

4. Note: The phrase "adjoined by an additional elastomer layer" in claim 18 is somewhat unclear, since it could be interpreted to mean that the elastomer layer is a tie layer for the outermost layer. However, the examiner interprets claim 18 to limit the pipe of claim 15 to have one additional elastomer layer adjoined to the outermost layer of the three-layer composite, as supported in the specification on p. 16 lines 12-17. Betremieux and Schueler apply as above, teaching a pipe but failing to mention a pipe covered by an elastomer layer. Bertero teaches a multi-layer pipe for conducting fuel comprising an inner layer including EPDM (col. 2 lines 21-28), a barrier layer of polyamide (col. 3 lines 16-32), and an outer cover layer of elastomeric material (col. 3 lines 53-64). It is the examiner's position that it would have been prima facie obvious to use an outer layer of elastomeric material in the invention of Betremieux and Schueler to serve as a "cover" or protective layer for the formed pipes.

9. Claims 1-15, 17, and 21 are rejected under 35 U.S.C. 103(a) as being obvious over Betremieux et al. in view of Bartz et al. (US 6,579,581 B2).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

10. Betremieux applies as above, teaching the use of polyamide copolymers having polyamide and polyetherdiamine blocks in a blend component (col. 3 lines 3-59), but failing to mention polyamine-polyamide copolymers prepared using the applicant's claimed monomers. Bartz teaches copolymers suitable as a blend component made by reacting 0.5-25% by weight of a polyamine having at least 11 nitrogen atoms and an M_n of at least 500 g/mol with an equimolar combination of polyamide-forming monomers

(col. 5 line 64-col. 6 line 15). Blends containing the copolymers have better impact strength (abstract) and better compatibility (col. 8 lines 39-49). Preferably, the polyamine is used in an amount of 1.5-16% by weight and has a molecular weight of at least 800 g/mol (col. 6 lines 4-15). The amino group concentration of the copolymer is preferably from 100-2500 mmol/kg (col. 6 lines 16-18). It is the examiner's position that it would have been prima facie obvious to use the polyamine-polyamide copolymers of Bartz's invention in the blend composition of Betremieux to improve the processing performance and compatibility of the blend.

11. Claims 1-13 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitsubishi in view of Bartz et al.

12. The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer

in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

13. Mitsubishi applies as above, teaching the use of polyamide blended with modified polyolefin but failing to mention polyamine-polyamide copolymers prepared using the applicant's claimed monomers. Bartz teaches copolymers suitable as a blend component made by reacting 0.5-25% by weight of a polyamine having at least 11 nitrogen atoms and an M_n of at least 500 g/mol with an equimolar combination of polyamide-forming monomers (col. 5 line 64-col. 6 line 15). Blends containing the copolymers have better impact strength (abstract) and better compatibility (col. 8 lines 39-49). Preferably, the polyamine is used in an amount of 1.5-16% by weight and has a molecular weight of at least 800 g/mol (col. 6 lines 4-15). The amino group concentration of the copolymer is preferably from 100-2500 mmol/kg (col. 6 lines 16-18). It is the examiner's position that it would have been *prima facie* obvious to use the polyamine-polyamide copolymers of Bartz's invention in the blend composition of Betremieux to improve the processing performance and compatibility of the blend.

5. Claims 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Betremieux et al. in view of Bartz et al. as applied to claims 1-15, 17, and 21 above, and further in view of Pfleger.

6. Betremieux and Bartz apply as above, teaching a pipe but failing to mention a corrugated pipe. Pfleger teaches a corrugated pipe used as a coolant line for automobiles (col. 1 lines 52-60) having an inner layer comprising EPDM and an outer layer of polyamide (col. 4 lines 21-25). Pfleger teaches that it is conventional to produce corrugated pipes because of their flexibility (col. 1 lines 36-42). Thus, it is the examiner's position that it would have been prima facie obvious to form a corrugated pipe from the invention of Betremieux and Bartz to provide a more flexible pipe suitable for use in automobiles.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Betremieux et al. in view of Bartz et al. as applied to claims 1-15, 17, and 21 above, and further in view of Bertero et al.

8. Note: The phrase "adjoined by an additional elastomer layer" in claim 18 is somewhat unclear, since it could be interpreted to mean that the elastomer layer is a tie layer for the outermost layer. However, the examiner interprets claim 18 to limit the pipe of claim 15 to have one additional elastomer layer adjoined to the outermost layer of the three-layer composite, as supported in the specification on p. 16 lines 12-17. Betremieux and Bartz apply as above, teaching a pipe but failing to mention a pipe covered by an elastomer layer. Bertero teaches a multi-layer pipe for conducting fuel comprising an inner layer including EPDM (col. 2 lines 21-28), a barrier layer of polyamide (col. 3 lines 16-32), and an outer cover layer of elastomeric material (col. 3 lines 53-64). It is the examiner's position that it would have been prima facie obvious to

use an outer layer of elastomeric material in the invention of Betremieux and Schueler to serve as a "cover" or protective layer for the formed pipes.


Response to Arguments

14. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.
15. A signed statement of common ownership may overcome the rejections above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie D. Bissett whose telephone number is (703) 308-6539 or (571) 272-1068 after December 2003. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (703) 308-2462. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


RABON SERGENT
PRIMARY EXAMINER

mdb